IN THE CLAIMS

Please amend claims 1, 3, 4, 11, 12 and 16 as shown below. Please cancel claim 2.

1   (Presently Amended) A method of <u>scale-based,</u> post-acquisition processing <u>of</u> an MRI-acquired image by variant anisotropic filtering to enhance structure and reduce noise<u>, wherein the processing comprises adaptively modifying degree of filtering at any image location depending on local object size information or scale, effecting improved low signal-to-noise ratio, or improved low contrast-to-noise ratio, or both</u>.

2.   (Cancel) The method of claim 1, comprising improving a low signal-to-noise ratio, or improving a low contrast-to-noise ratio, or improving both.

3.   (Presently Amended) The method of claim[2] <u>1</u>, wherein filtering comprises a spatial-resolution adaptive scale-computation method.

4.   (Presently Amended) The method of claim[3] <u>1</u>, comprising accurately using a restricted homogeneity parameter for filtering small scale regions of the image, and at the same time, using a generous filtering parameter for filtering large scale regions of the image.

5.   (Original) The method of claim 4, wherein small scale regions comprise fine details and vicinities of boundaries of the image.

6.   (Original) The method of claim 4, wherein large scale regions comprise interiors of homogeneous regions of the image.

7.   (Original) The method of claim 4, wherein filtering comprises a scale-based neighborhood averaging method.

8.   (Original) The method of claim 7, wherein filtering comprises a weighted average over a scale-dependent neighborhood.

9.   (Original) The method of claim 4, wherein filtering comprises a scale-based diffusive filtering method.

10.   (Original) The method of claim 9, wherein filtering comprises scale-dependent diffusion conductance.

11.   (Presently Amended) The method of claim[2] 1, wherein [an] a scale-based, enhanced MRI-acquired image is achieved for a selected MRI protocol, and for a selected region of a patient's body, by the steps comprising:

      a) imaging the region of the patient's body by the selected MR protocol to form an acquired image, and

      b) filtering the acquired image by a scale-based spatial resolution adaptive method using region-constancy based on local homogeneity to produce an enhanced image.

12.   (Presently Amended) The method of claim 11, wherein the image is enhanced [independent] independently of variations within or between patients, within or between tissues being imaged, or within or between MR devices used to acquire the image.

13.   (Original) The method according to claim 11, wherein the method is automated.

14.   (Original) The method according to claim 11, which is built into an MR scanner, permitting production of enhanced real time images.

15.   (Original) The enhanced MR image for imaging a region of the body of a patient according to claim 7.

16.   (Presently Amended) The enhanced MR image for imaging a region of the body of a patient according to claim 9.

17.   (Original) The enhanced MR image for imaging a region of the body of a patient according to claim 11.

18.   (Original) A system for post-acquisition processing of an MRI-acquired image by a scale based filtering method, comprising:

      means for acquiring the MRI-acquired image, and

      means for filtering the acquired image by a spatial-resolution adaptive scale-computation method according to claim 11.

19.   (Original) The system according to claim 18, wherein the filtering method is a scale-based neighborhood averaging method or a scale-based diffusive filtering method.

20.   (Original) A device for post-acquisition processing of an MRI-acquired image by a scale based filtering method, comprising:

      a computer-readable signal-bearing medium;

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means in the medium for acquiring the MRI-acquired image, and

means for filtering the acquired image by a spatial-resolution adaptive scale-computation

method according to claim 11.

21.   (Original) The device according to claim 20, wherein the filtering method is a scale-

based neighborhood averaging method or a scale-based diffusive filtering method.